CHANGE ISSUE

ASA MASPS REV -

Tracking Information (committee secretary only)	
Change Issue Number	6
Submission Date	1/23/2003
Status (open/closed/deferred)	CLOSED
Last Action Date	4/23/03

Short Title for Change Issue:	Possibility of requiring minimum data quality (accuracy and integrity) on all ADS-B transmitting participants

MASPS Document Reference:		Originator Information:	
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Paragraph number(s)		E-mail	Stuart.Searight@faa.gov
Table/Figure number(s)		Other	

Proposed Rationale for Consideration (originator should check all that apply):	
	Item needed to support of near-term MASPS/MOPS development
	DO-260/ED-102 1090 MHz Link MOPS Rev A
	ADS-B MASPS
	TIS-B MASPS
	UAT MOPS
	Item needed to support applications that have well defined concept of operation
	Has complete application description
	Has initial validation via operational test/evaluation
	Has supporting analysis, if candidate stressing application
	Item needed for harmonization with international requirements
X	Item identified during recent ADS-B development activities and operational evaluations
X	MASPS clarifications and correction item
	Validation/modification of questioned MASPS requirement item
	Military use provision item
	New requirement item (must be associated with traffic surveillance to support ASAS)

Nature of Issue:		Editorial	X	Clarity	X	Performance		Functional

Issue Description:

The draft of Chapter 2 of the ASA MASPS dated January16, 2003 (ASA MASPS chapter 2 hellecon 011403a.doc) introduced the concept of ASA Levels. Within this ASA equipment grouping, it was proposed that the grouping named "ADS-B Transmit Only" would support the Enhanced Visual Acquisition and Conflict Detection applications. (See Table 2-5 "ASA Requirements by Equipment Category.") To adequately support these applications, minimum criteria is proposed for the accuracy and integrity of the data to be broadcast. While the NIC, NAC_P, and NAC_V values are tentative and subject to change while validation of the applications continues, this minimum requirement of data quality could have profound effects on ADS-B equipment.

Table 2-5 could be interpreted to mean that any ADS-B system broadcasting data must broadcast data of a given quality. This would mean GPS sensors must be hooked into ADS-B, and be available and functioning properly. This also would infer that if the data provided to the ADS-B transmitting subsystem does not meet certain criteria, transmissions might not be allowed.

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Issue Description (*continued*):

If this is the meaning of the criteria proposed in Table 2-5, then the ADS-B community (especially GA users) needs to be appraised of these potential requirements to see what concerns this might raise. (Many feel ADS-B transmitting and receiving subsystems are not much more than modems which transmit the best available surveillance data and receive all data with its associated quality attributes and pass it along to applications which can determine if the data is usable or not for that application.)

If this table is not meant to place minimum quality criteria on all ADS-B data broadcast, then the table needs to be clarified that the minimum data quality criteria is for data being used by ASA applications, and not criteria for what data can and can not be broadcast.

Originator's proposed resolution:

Clarify the table as the concept of ASA Levels is matured. Do **not** place minimum requirements on what data can and can not be transmitted by ADS-B. Instead develop the concept to place the minimum quality requirements on the data that can be used by ASA applications.

Working Group 4 Deliberations:

April 22, 2003: This Issue Paper was reviewed and discussed y WG4 at the WG4 meetings held April 22 & 23, 2003 at RTCA, Inc. WG4 agreed that the ASA MASPS will not impose any requirements on minimum data quality of position/velocity/time data transmitted on the ADS-B or TIS-B systems. This Issue Paper is therefore considered CLOSED.